WHAT IS CLAIMED IS:

- 1. An actuator consisting of a conjugated polymeric material, whereby said material expands when an electrical voltage is applied between two locations thereof and contracts when the electrical voltage is reduced.
- 2. The actuator as described in claim 1 wherein said conjugated polymeric material comprises polyaniline.
- 3. A method of actuation comprising the step of directly electrically stimulating a conjugated polymeric material at two locations thereof.
- 4. The method of actuation as described in claim 3, wherein said conjugated polymeric material comprises polyaniline.